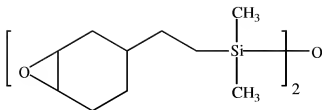


IN THE CLAIMS:

1. (Cancelled).
2. (Currently Amended) ~~A material composition~~ An article as set forth in claim ~~[[1]]36~~ wherein said first component comprises two cationically polymerizable functional groups.
3. (Currently Amended) ~~A material composition~~ An article as set forth in claim ~~[[1]]36~~ wherein said monomer portion of said first component is an organic monomer selected from the group of aryl, norbornane, and combinations thereof.
4. (Currently Amended) ~~A material composition~~ An article as set forth in claim ~~[[1]]36~~ wherein said monomer portion of said first component is an organosilicone monomer containing (SiR₂O) or (SiRO_{3/2}) units, wherein R is hydrogen, a methyl group, a phenyl group, a hydrocarbon, or a fluorocarbon group.
5. (Currently Amended) ~~A material composition~~ An article as set forth in claim ~~[[1]]36~~ wherein said cationically polymerizable functional group of said first component is selected from the group of epoxy functional groups, vinyl ether functional groups, and combinations thereof.
6. (Currently Amended) ~~A material composition~~ An article as set forth in claim ~~[[1]]36~~ wherein said first component is

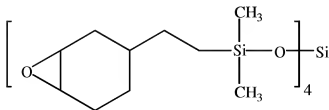


7. (Currently Amended) ~~A material composition~~ An article as set forth in claim [[1]]36 wherein said crosslinker comprises four cationically polymerizable functional groups.

8. (Currently Amended) ~~A material composition~~ An article as set forth in claim [[1]]36 wherein said crosslinker comprises silicone.

9. (Currently Amended) ~~A material composition~~ An article as set forth in claim [[1]]36 wherein said cationically polymerizable function groups of said crosslinker are selected from the group of epoxy functional groups, vinyl ether functional groups, and combinations thereof.

10. (Currently Amended) ~~A material composition~~ An article as set forth in claim [[1]]36 wherein said crosslinker is



11. (Currently Amended) ~~A material composition~~ An article as set forth in claim [[1]]36 wherein first component and/or said crosslinker are the reaction product of 4-vinyl-1-cyclohexane-1,2-epoxide and an SiH-functional silicone compound.

12. (Currently Amended) ~~A material composition~~ An article as set forth in claim [[1]]36 wherein said cationic photoinitiator comprises an active cationic species and an anionic species, with said cationic species comprising an onium salt.

13. (Currently Amended) ~~A material composition~~ An article as set forth in claim 12 wherein said onium salt is a diaryliodonium salt, a triarylsulfonium salt, or a tetraaryl phosphonium salt and said anionic species is selected from the group of BF_4^- , PF_6^- , AsF_6^- , SbF_6^- , and $(\text{C}_6\text{F}_5)_4\text{B}^-$.

14. (Currently Amended) ~~A material composition~~ An article as set forth in claim [[1]]36 wherein said first component is present from 90-98 parts by weight, said crosslinker is present from 1-9 parts by weight, and said cationic photoinitiator is present from 0.1-2 parts by weight, all based on 100 parts by weight of said material composition.

15. (Currently Amended) ~~A material composition~~ An article as set forth in claim [[1]]36 further comprising a non-reactive diluent for reducing a viscosity of said material composition.

16. (Currently Amended) A material composition as set forth in claim 1 comprising:

a first component having a monomer portion and at least one cationically polymerizable functional group;

a crosslinker reactive with said first component and comprising at least three cationically polymerizable functional groups;

a cationic photoinitiator, and

a non-reactive diluent for reducing a viscosity of said material composition wherein said non-reactive diluent is selected from the group of ~~PGMEA~~propylene glycol monomethyl ether acetate, ~~PGME~~propylene glycol monomethyl ether, 2-heptanone, xylene, and combinations thereof.

17. (Cancelled)

18. (Currently Amended) ~~A material composition~~ An article as set forth in claim [[1]]36 wherein;

said first component comprises two epoxy functional groups and said monomer portion of said first component is an organosilicone monomer; and

said crosslinker comprises silicone and four epoxy functional groups.

19. (Currently Amended) ~~A material composition~~ An article as set forth in claim [[1]]36 wherein said composition is applied on a substrate to form a film by spin-coating, dip-coating, or spray-coating.

20. (Currently Amended) ~~A material composition~~ An article as set forth in claim [[1]]~~36~~ wherein said composition is applied on a substrate as liquid droplets prior to contact printing.

21. (Currently Amended) ~~Use of the~~A method comprising the step of imprinting a material composition comprising:

_____ a first component having a monomer portion and at least one cationically polymerizable functional group;

_____ a crosslinker reactive with said first component and comprising at least three cationically polymerizable functional groups; and

_____ a cationic photoinitiator,

~~of claim 1 in~~through at least one of nanoscale contact printing, nanoimprint lithography (NIL), microimprint lithography, UV-assisted nanoimprint lithography, Step-and-Flash Nanoimprint Lithography (S-FIL), and combined-nanoimprint-and-photolithography.

22. (Currently Amended) ~~Use of the material composition of claim 1 in~~A method as set forth in claim 21 wherein a tool selected from the group of contact aligners, nanoimprinters, bonding machines, and presses is used for the step of imprinting.

23. (Currently Amended) ~~Use of the material composition of claim 1~~A method as set forth in claim 21 wherein the material is imprinted at temperatures between 0 and 100°C and/or at pressures less than 10 atmospheres.

~~A cured resist film~~

An article comprising

fluid substrate layer a

comprising a monon

a crosslinker reactive with said first component and comprising at least three cationically polymerizable functional groups; and

a cationic photoinitiator; and

an undercoating layer disposed between said substrate layer and said resist layer.

37. (Original) An article as set forth in claim 36 wherein said substrate layer is formed from silicon or glass.

38. (Cancelled).

39. (Currently Amended) An article as set forth in claim ~~[[38]]~~36 wherein said undercoating layer is formed from a polymer.

40. (Original) An article as set forth in claim in claim 39 wherein said polymer comprises poly(methyl methacrylate).

41-50. (Cancelled)